

Machinery incorporating Sheet Metal Industries
Tel: 01322 221144
Fax: 01322 421549
Email: machinery@findlay.co.uk
Website: www.machinery.co.uk

EDITOR

Andrew Allcock MIET

ART EDITOR

Neil Young

SALES DIRECTORJoe Opitz (jopitz@findlay.co.uk)
Mobile: 07967 169098**ACCOUNT MANAGERS**Peter Green (pgreen@findlay.co.uk)**TELEPHONE SALES**Chris Warner (cwarner@findlay.co.uk)
Stuart Tarrant (starrant@findlay.co.uk)**PUBLISHING ASSISTANT**Kerry Wilkins (kwilkins@findlay.co.uk)**CIRCULATION MANAGER**Chris Jones (circulation@findlay.co.uk)**PRODUCTION**Heather Upton (hupton@findlay.co.uk)**PUBLISHER**Peter Knutton (pknutton@findlay.co.uk)

If you change jobs or your company moves to a new location, please contact circulation@findlay.co.uk to continue receiving your free copy of journal title.

Machinery is published on the first Friday of every month by Findlay Publications Ltd, Hawley Mill, Hawley Road, Dartford, Kent DA2 7TJ

Annual subscription is £116 (UK) and £171 (Overseas).

© Machpress Ltd, 2008 ISSN 1753-0482

Origination by CTT Ltd. (Camden Town Typesetters), Units C/D, Sutherland Road, Walthamstow, London, E17 6BU
Printed in England by Wyndeham Heron Ltd, Heybridge, Maldon, Essex CM9 4NW



Precise approach



Anybody heard of someone saying they don't make precision machines or parts? The adjective 'precision', meaning exactness or accuracy, is banded about by everyone. Indeed, we also have high precision, super precision and more.

At last year's EMO exhibition, Kern Micro unveiled its definition of precision. It asked: "how do you define precision?" adding: "After all, practically all manufacturers of machine tools sell precision machines".

And it added that the British Standard, DIN, the newly introduced Euro norm EN and standards on other continents have no clear definition of the word 'precision' or 'accuracy'. Kern also said that many manufacturers of machining centres do not state accuracies in their brochure while others only state the measuring system resolution.

Within Europe there is DIN VDI/DGQ 3441 with its clear definitions for accuracy and repeatability, but variations between European and Asian standards add to customer confusion, said the company.

Kern defines accuracy by what is actually achieved on the workpiece, So, $\leq 10\mu$ = micro precision; $\leq 3\mu$ = ultra precision; and $\leq 1\mu$ = nano precision.

Others will clearly differ, but machine precision is just one technical factor to consider in matters of production.

An interesting, systematic approach to selecting the most appropriate level of machine precision and more was unveiled by Hardinge Group at last month's MACH 2008 exhibition in Birmingham.

Hardinge Group (the new name of choice for Hardinge Inc plus its brands such as Bridgeport) explained that its Spectrum Initiative approach leads users through a selection process that, first, sees the process chosen – so turning, milling or grinding; then the capacity – so chuck or bar diameter, for example; then functionality, such as Y-axis or driven tools – implying complex or simple geometry; then it moves on to capability. This is where part hardness, accuracy, surface finish, production volume and budget are taken into the equation.

For example, a part can be complex geometrically speaking and yet unchallenging in terms of accuracy or hardness. Conversely, a simple part geometrically speaking might feature tight tolerances, be made from a hard material and require highest quality surface finish.

In both its turning and machining centre ranges, Hardinge offers three distinct levels of products, and an online configurator* guides end-users towards the appropriate models using the Spectrum approach. Being precise about your machine tool choice isn't only a matter of precision, clearly. □

*www.hardingespectrum.co.uk

Being precise about your machine tool choice isn't only a matter of precision, as Hardinge Group is demonstrating

VERICUT

- Simulate output from any CAM system
- Eliminate CNC Machine Prove-outs
- Avoid CNC Machine Collisions
- Simulate and Verify CNC Code



Visit our website to request a free Virtual Machining Gallery CD

